

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A spiral separation membrane element comprising:
a perforated cored tube formed with a plurality of perforations; and, spirally wound therearound,
~~one or more a separation membranes, membrane;~~
~~one or more a feed-side passage materials, and material;~~
~~one or more a first permeation-side passage materials, material; and~~
a second permeation-side passage material being spirally wound around the perforated cored tube, wherein:

the separation ~~membranes and membrane,~~ the feed-side passage material, and the first permeation-side passage materials being material are spirally wound around the cored tube so that second permeation-side passage material;

the feed-side passage ~~materials-material~~ and the first permeation-side passage materials material are disposed respectively on the feed side and permeation side of the separation ~~membranes membrane;~~ and that a permeation-side passage material which is the same as or different from the permeation-side passage materials is interposed at the periphery of the perforated cored tube,

~~wherein~~ the effective perforated-part area as calculated by multiplying the total area of the ~~perforated parts-perforations~~ in the core-perforated cored tube by the percentage of openings

~~of~~ in one layer of the second permeation-side passage material ~~surrounding the core tube~~ is at least 1.0 time the inner cross-sectional area of the core tube.

2. (currently amended): The spiral separation membrane element as claimed in claim 1, wherein the second permeation-side passage material ~~interposed at the periphery of the core tube~~ is wound around the perforated cored tube so as to make substantially 2-15 laps.

3. (currently amended): The spiral separation membrane element as claimed in claim 1 or 2, wherein the separation ~~membranes are~~ membrane includes at least one of a ultralow-pressure reverse osmosis ~~membranes~~ membrane, ultrafiltration ~~membranes~~ membrane, or microfiltration ~~membranes~~ membrane.

4. (new): The spiral separation membrane element as claimed in claim 1, wherein the first permeation-side passage material is monolithic with the second permeation-side passage material.

5. (new): The spiral separation membrane element as claimed in claim 1, wherein the first permeation-side passage material is separated from the second permeation-side passage material.